



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,625	06/19/2006	Benno Syfrig	155.101	8530
22846	7590	08/31/2007	EXAMINER	
BRIAN ROFFE, ESQ 11 SUNRISE PLAZA, SUITE 303 VALLEY STREAM, NY 11580-6111			BASHAW, HEIDI M	
		ART UNIT	PAPER NUMBER	
		3709		
		MAIL DATE	DELIVERY MODE	
		08/31/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,625	SYFRIG, BENNO	
	Examiner Heidi M. Bashaw	Art Unit 3709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 June 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-10 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 19 June 2006 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "1" and "6" have both been used to designate drill.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 10. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in

upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (d) BRIEF SUMMARY OF THE INVENTION.
- (e) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (f) DETAILED DESCRIPTION OF THE INVENTION.
- (g) CLAIM OR CLAIMS (commencing on a separate sheet).
- (h) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

Claim Objections

3. Claim 1 is objected to because of the following informalities: on line 4 of the claim " to close to" is claimed; it is believed that this is an error for --close to--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurer 5,118,294 in view of Appleby 4,897,037.

6. Re claim 1, Kurer discloses the method to extract a root of a tooth, whereby the upper part of the root of a tooth is drilled into using a drill (col. 2, ll. 44-45). The root is

drilled close to its base as illustrated in fig. 1. After the removal of the drill a threaded pin can be inserted by rotation into the opening in the root (col. 2, ll. 64-65).

7. Kurer does not teach the drill expanding the root is coated, with an abrasive material.

8. Appleby teaches the drill expanding the root is coated, with an abrasive material 16.

9. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Kurer in view of Appleby in order to provide a working surface with an abrading material as taught by Appleby (col. 1, ll. 11-12).

10. Re claim 2, Kurer does not teach the root is expanded by a pin projection coated with an abrasive material and having a smaller diameter than a boring drill part.

11. Appleby teaches a pin projection 22 which is coated with an abrasive material 16 and has a smaller diameter than a boring drill part 20 as illustrated in fig. 1.

12. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Kurer in view of Appleby in order to provide a working surface with an abrading material as taught by Appleby (col. 1, ll. 11-12) and in order to place the drill under the gum line as taught by Appleby (col.1, ll. 33-34).

13. Re claim 3, Kurer does not teach the drill with a boring drill part and a shaft. A head provided with means for rotatably mounting in a drill device. The drill part with a pin projection at its forward end comprising a smaller diameter and approximately cylindrical coated with an abrasive material at its tip and on the cylindrical sheath.

14. Appleby teaches the drill comprising of a boring drill part 20, a shaft 12 and a head 14 for mounting in a drill device (col. 2, ll. 28-29). A pin projection 22 is provided on the boring drill part 20 at its forward end. The pin projection 22 comprising a smaller diameter and being cylindrical. The drill is also coated with an abrasive material 16 on its tip and the cylindrical sheath as illustrated in fig. 1.

15. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Kurer in view of Appleby in order to provide a means for holding the drill in a drill device as taught by Appleby (col. 1, l. 65) and in order to provide a working surface with an abrading material as taught by Appleby (col. 1, ll. 11-12).

16. Re claim 6, Kurer does not teach the abrasive material of the pin projection consists of diamond dust.

17. Appleby teaches the abrasive material of the pin projection 22 consisting of diamond dust (col. 2, l. 33).

18. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Kurer in view of Appleby to provide a working surface with an abrading material as taught by Appleby (col. 1, ll. 11-12).

19. In re claim 8, Kurer in view of Appleby does not teach the diameter of the drill part being at least approximately 2 mm and the total length of the drill part with the pin projection being at least approximately 16 mm. However, the numerical values cited are an obvious extension of prior art. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges

by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) MPEP 2144.05 II A.

20. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurer 5,118,294 in view of Appleby 4,897,037 and further in view of Oyamada et al. 6,565,356 (Oyamada).

21. In re claim 4, Kurer in view of Appleby does not teach the cylindrical pin projection with a length between 5 and 8 mm and a diameter between 1.3 and 1.6 mm.

22. Oyamada teaches the cylindrical pin projection 22 having a length between 6 and 8 mm (col. 4, ll. 25-26) and a diameter between 1.45 and 1.6 (col. 4, ll. 56-58).

However, the numerical values cited are an obvious extension of prior art. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) MPEP 2144.05 II A.

23. In re claim 5, Kurer in view of Appleby does not teach the pin projection having a length of at least approximately 6 mm and a diameter of at least approximately 1.3 mm.

24. Oyamada teaches the cylindrical pin projection 22 having a length of 6 mm (col. 4, ll. 25-26) and a diameter of 1.3 mm (col. 4, ll. 56-58). However, the numerical values cited are an obvious extension of prior art. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) MPEP 2144.05 II A.

25. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurer 5,118,294 in view of Appleby 4,897,037 and further in view of Vrespa 5,259,398.

26. In re claim 7, Kurer in view of Appleby as discussed above further teaches the pin projection rounded at its abrasive tip as illustrated in fig. 1.

27. However, Kurer in view of Appleby does not teach a taper at the transition from the drill part to the projection.

28. Vrespa teaches a taper at the transition from the drill part 23 to the projection 8.

29. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kurer in view of Appleby and further in view of Vrespa in order to obtain the maximum congruence between the screw and the bone as taught by Vrespa (col. 9, ll. 41-42).

30. In re claim 9, Kurer in view of Appleby does not teach the drill part in the form of a self-tapping screw.

31. Vrespa teaches the drill part is in the form of a self-tapping screw (col. 13, ll. 38).

32. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kurer in view of Appleby and further in view of Vrespa in order to insert the screw directly into the cavity as taught by Vrespa (col. 1, ll. 24-26).

33. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurer 5,118,294 in view of Appleby 4,897,037 and further in view of Plischka 4,466,795.

34. In re claim 10, Kurer in view of Appleby teaches as discussed above but does not teach the drill part having at least one helical groove carrying away the drilled material and the pin projection having at least one helical groove extending on the drill part.

Art Unit: 3709

35. Plischka teaches the drill part and pin projection having a helical groove (col. 2, ll. 38-39) carrying away the drilled material (col. 44-45).

36. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kurer in view of Appleby and further in view of Plischka for effective removal of the abraded material as taught by Plischka (col. 1, ll. 44-45).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heidi M. Bashaw whose telephone number is 571-270-3081. The examiner can normally be reached on Mon-Fri (Alternate Fridays off) 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3709

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HMB

Kimberly Smith
8/28/07

Kim Smith
KIMBERLY S. SMITH
PRIMARY EXAMINER

8/28/07